

TREND *Reports*

MINNESOTA PATTERNS

STATE PLANNING AGENCY

JANUARY, 1989

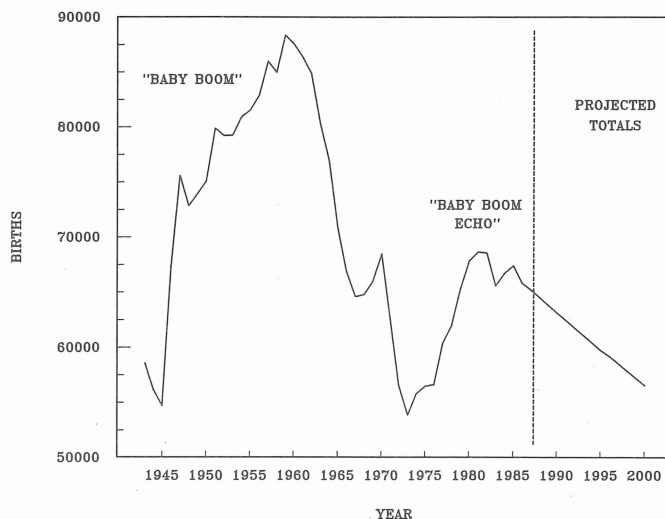
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This issue of Minnesota Patterns Trend Report is part of a series of reports analyzing issues of current interest from a state and national geographic context. These reports are a joint effort of the Minnesota State Planning Agency (SPA) and the Center for Urban and Regional Affairs (CURA) at the University of Minnesota.

MINNESOTA PUBLIC EDUCATION - STUDENTS AND STAFF

This is the first Minnesota Patterns dealing with public education. This issue explores (1) current and projected student enrollment in Minnesota's primary and secondary (K-12) public schools and (2) the number of teachers and professional staff for Minnesota public schools.

- In the fall of 1987, over 721,000 students were enrolled in Minnesota's public schools (Pre-kindergarten through grade 12). Between the 1972-3 and 1984-5 school years, total enrollment declined by nearly 208,000 students (over 23%). Between 1984-5 and 1987-8 enrollment has increased over 18,000 students. State-wide enrollments are projected to increase to over 784,000 by the 1996-97 school year. However, declining enrollments are likely to return to Minnesota after the mid-1990s because of a declining number of births since the mid-1980s.
- The distribution of students across Minnesota's 436 school districts is far from uniform. The 35 largest districts serve about one-half of the state's students. Of these 35 districts, 24 are located in the seven county Twin Cities metropolitan area. Conversely, the smallest 217 school districts serve only 10.4 percent of the state's students.
- For the 1986-7 school year, Minnesota's districts employed a professional staff (defined as classroom teachers, administrators and all other licensed professional personnel) of 46,425. This means the number of pupils per professional staff member was 15.2. Prior to the 1980s, both the number of pupils per teacher and pupils per total staff member had steadily decreased for many years. However, in the early 1980s, the state budget crisis and resulting reduction of staff, abruptly reversed the trend. The ratios are only now returning to the pre-crisis level. Minnesota has both fewer pupils per teacher and fewer pupils per professional staff member than the national average. However, the national averages have grown closer to Minnesota's over the last 15 years.



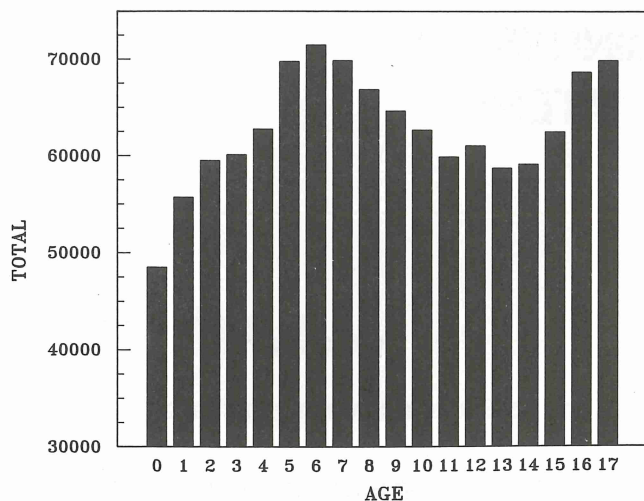
BIRTHS IN MINNESOTA, 1945-2000

The annual number of births in Minnesota was nearly 90,000 in 1959 at the peak of the "baby boom". Births declined to about 55,000 in 1973 at the bottom of the "baby bust".

A baby boom "echo" began in the late 1970s as the number of baby boomers having children increased. However, with the aging of the baby boom, this increase in births is not expected to continue. By the year 2000, births are again projected to be below 60,000 per year.

The upturn of births in the late 1970s, in combination with a movement of considerable numbers of students from nonpublic to public schools, resulted in an enrollment upturn starting with the 1985-6 school year.

Source: "K-12 Education Trends", Trend Report, Minnesota State Planning Agency, 1987 and School District Profiles, 1985-6.

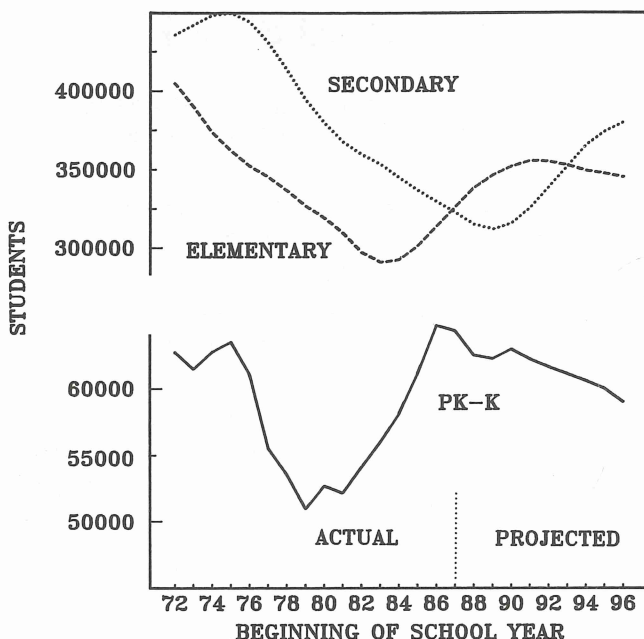


PRE-SCHOOL AND SCHOOL AGE POPULATION, FALL, 1987

In the fall of 1987, the peak age of the baby boom echo was 6 years (kindergarten or first grade). These 71,531 people represent the largest age group for the school age population.

The rapid decline of population under 5 is larger than the declining number of births would suggest. This is probably caused by the difficulty in counting children at home versus in the classroom.

Source: Annual School Census, Fall, 1987.



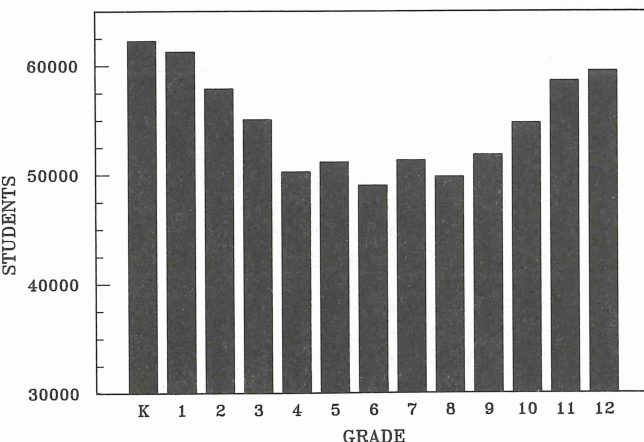
MINNESOTA PUBLIC SCHOOL ENROLLMENT (ACTUAL AND PROJECTED), 1972-1996.

Total enrollment in Minnesota's public schools was 721,455 on October 1, 1987. Of this total, 5,693 pupils were in pre-kindergarten handicapped programs, 62,391 were in kindergarten, 327,251 in elementary schools grades (1-6), and 326,120 were in secondary schools (grades 7-12).

From the end of World War II until the early 1970s, total school enrollments in Minnesota increased with the baby boom. However, from the early 1970s until the 1985-6 school year, enrollments declined as the "baby bust" generation moved through the schools. Between 1972-3 and 1984-5 Minnesota's total enrollment declined 23 percent - nearly 208,000 students. Nationally, public school enrollment also declined every year from the fall of 1971 until the fall of 1984.

The Minnesota Department of Education projects an enrollment increase of over 71,000 students (almost 10 percent) from the 1987-8 to the 1996-7 school years.

Source: School District Profiles, 1986-7; Minnesota School Enrollment Projections, 1988 edition; and Digest of Educational Statistics.



PUBLIC SCHOOL ENROLLMENT BY GRADE, FALL, 1987

Public school enrollment represents about 90% of all elementary and secondary school students. Enrollment data by grade for public schools in the fall of 1987 show the bottom of the baby bust and the likely peak of the echo.

The bottom of the baby bust was in the 6th to 8th grade levels in the fall of 1987. The 6th and 8th grades levels both had fewer than 50,000 students.

The peak enrollment in the fall of 1987 was for kindergarten with over 62,000 students.

While these peaks and valleys might vary from district to district, a vast majority of districts were within one year of the state pattern.

Source: Minnesota Public School Enrollment, October 1, 1987

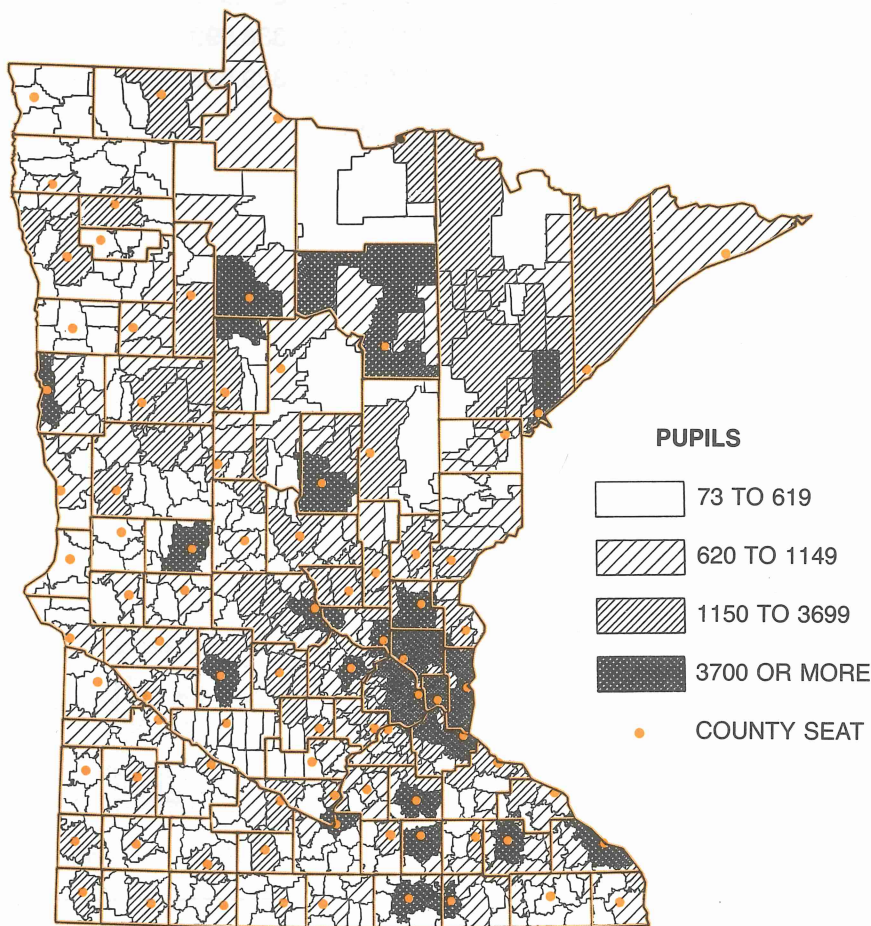
MINNESOTA SCHOOL DISTRICTS BY SIZE GROUP, 1986-7

If the total public school enrollment was spread evenly over all of the state's 436 districts for the 1986-7 school year, each district would have about 1,625 students. However, the median district had only 621 students, indicating a large number of small-enrollment districts. District enrollments ranged in size from Minneapolis with 38,763 to Verdi with 73. The three largest districts in the state - Minneapolis, Anoka-Hennepin and St. Paul - serve nearly one-seventh of the state's students.

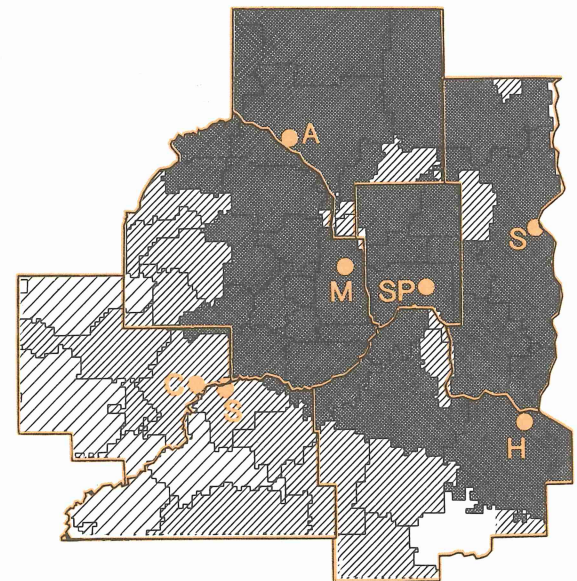
When school districts are grouped by enrollment, the largest 10 percent of district have over 55 percent of the State's students. Conversely, the smallest 10 percent of districts have only 1 percent of the State's students.

Source: School District Profiles, 1986-7.

DISTRICT SIZE RANGE	NUMBER OF DISTRICTS	TOTAL ENROLLMENT	PERCENT OF STATE TOTAL
0-214	45	7,101	1.0
215-289	43	10,826	1.5
290-369	42	14,011	2.0
370-464	44	18,573	2.6
465-619	43	23,386	3.3
620-829	45	28,284	4.0
830-1149	45	41,351	5.8
1150-1749	43	62,326	8.8
1750-3699	42	112,558	15.9
3700 OR MORE	44	390,093	55.1
STATE TOTALS	436	708,509	100.0%



7-COUNTY METRO AREA



MINNESOTA SCHOOL DISTRICTS BY SIZE, 1986-7

Districts with the most students generally contain one or more major cities or are in fast-growing suburban areas. Of the 20 largest school districts, only four (Duluth, Rochester, St. Cloud and Mankato) are located outside the 7-county Twin Cities metropolitan area.

Of the 300 smallest districts, only four are in the 7-county metropolitan area. A majority of the smaller districts have large geographic areas, recent population declines, and/or have been hit by economic decline in recent years. These factors present obvious funding and transportation problems for these districts.

Source: School District Profiles, 1986-7.

CHANGE IN SCHOOL DISTRICT ENROLLMENT, 1982-3 TO 1986-7

During this 5-year period, total public school enrollment declined by only 2,526, or 0.4 percent. However, this change was far from uniform across the State. In terms of percent change, the Babbitt district had the largest decline with -37.1 percent (a loss of 378 students) and the Warroad district had the largest increase with 41.9 percent (a gain of 303 students).

Areas with major enrollment declines were concentrated in the mining and agricultural areas of the state which were both hit by economic decline during this period.

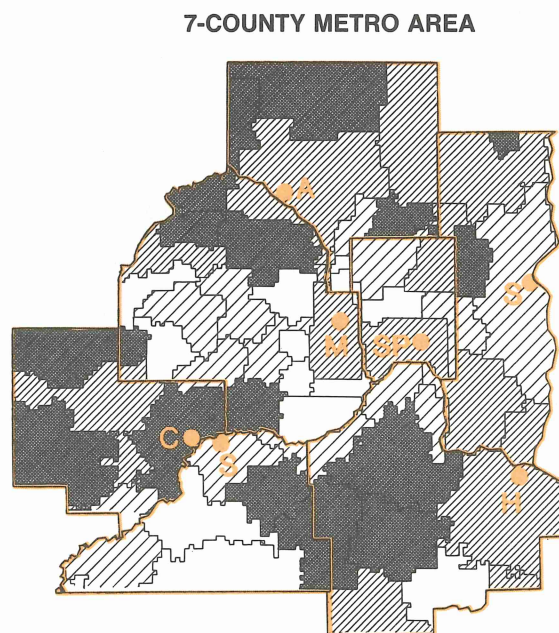
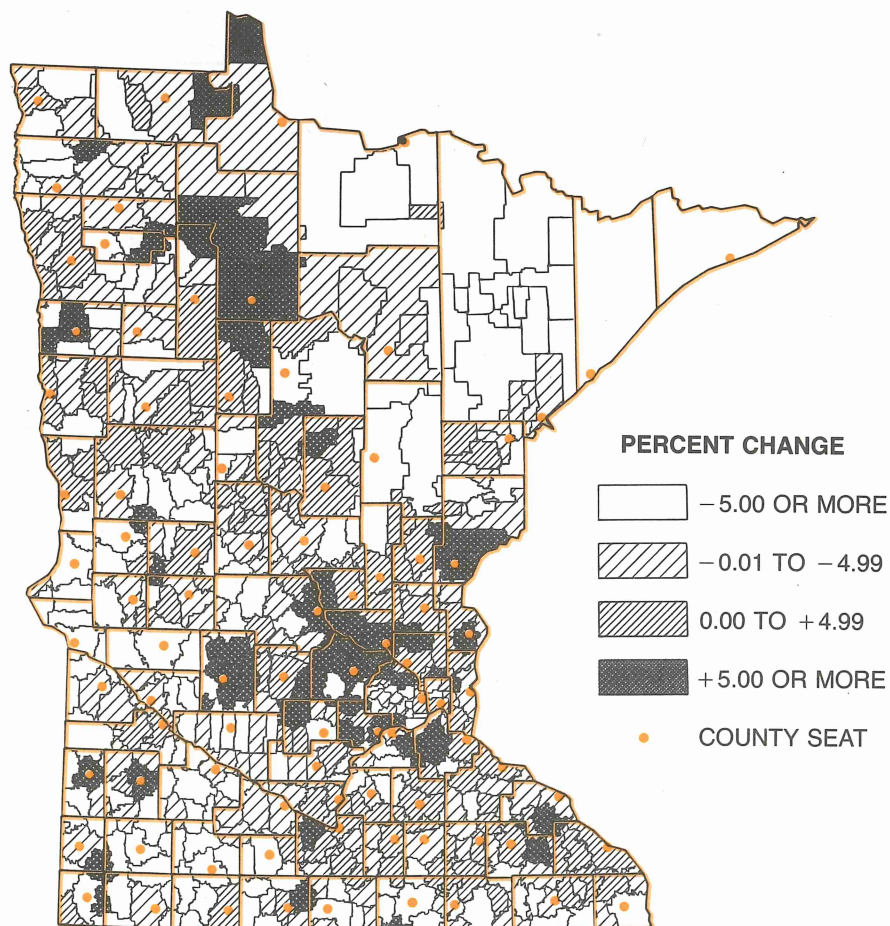
Areas with major enrollment increases were concentrated in portions of the Twin Cities commuter area and selected Greater Minnesota cities.

Source: Minnesota Public School Enrollment Projections - 1988 edition.

RECENT ENROLLMENT CHANGES

SCHOOL YEAR	PRE-KINDERGARTEN		ELEMENTARY	SECONDARY	TOTAL
	HANDICAPPED	KINDERGARTEN			
1982-83	1,663	52,468	297,255	359,585	710,971
1983-84	1,821	54,185	290,904	353,273	700,183
1984-85	1,767	56,362	292,873	344,817	695,819
1985-86	1,874	59,310	301,360	336,699	699,249
1986-87	3,868*	60,932	314,053	329,593	708,446

* Change in counting method resulted in exaggerated total.



PROJECTED CHANGE IN SCHOOL DISTRICT ENROLLMENT, 1986-7 TO 1991-2

During this 5-year period, total state enrollment is expected to increase by 35,036 students or 4.9 percent. As might be expected, the projected increase will not be spread uniformly over the State. In fact, almost 58 percent of the State's 436 school districts are projected to decline over this 5-year period.

Areas with projected declines of enrollment continue to be found in northeastern Minnesota and small-enrollment districts in the agricultural part of the state. The largest projected loss is 38.9 percent for the Babbitt district.

Areas with projected increases of enrollment are predominantly located in the population growth axis from southeastern to northcentral Minnesota. The largest increase is in the Eden Prairie district with 53.5 percent.

Looking at projections for the next ten years and beyond, total state enrollment is expected to be about 10 percent above present totals by the mid-1990s, then is likely to start declining again before the end of the century. Projections for the next ten years show:

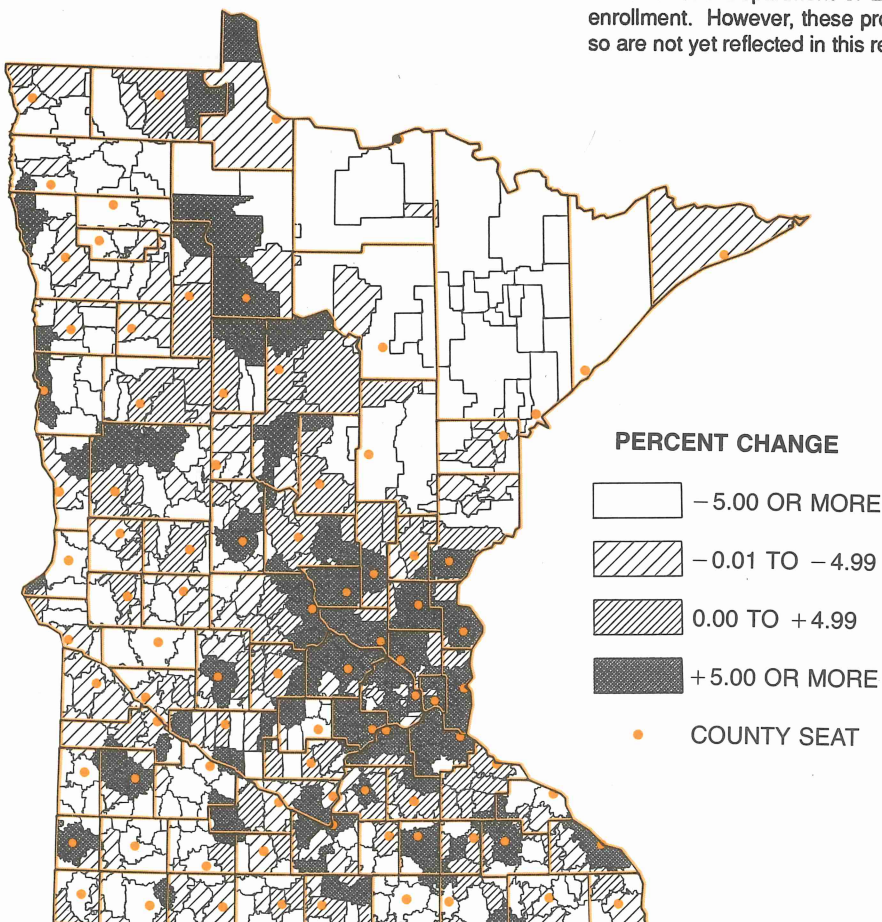
- (1) kindergarten enrollment peaking in the 1987-8 school year,
- (2) elementary (1-6) enrollment will peak in the 1991-2 school year and
- (3) secondary enrollment (7-12), as well as total (K-12) enrollment, will peak in the mid-1990s.

Source: Minnesota Public School Enrollment Projections - 1988 edition.

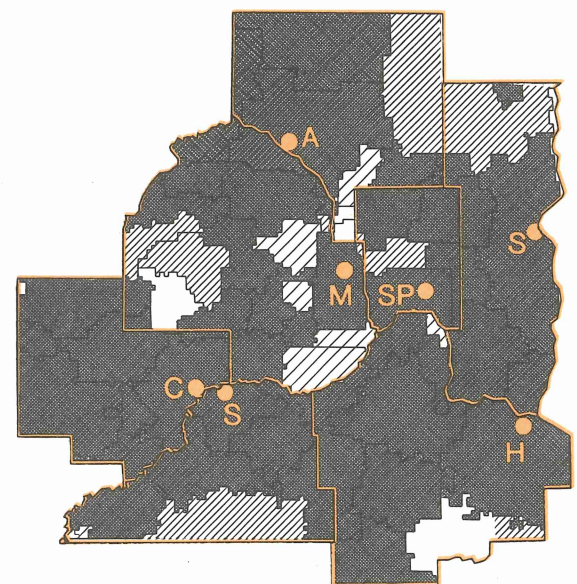
PROJECTED ENROLLMENT CHANGES

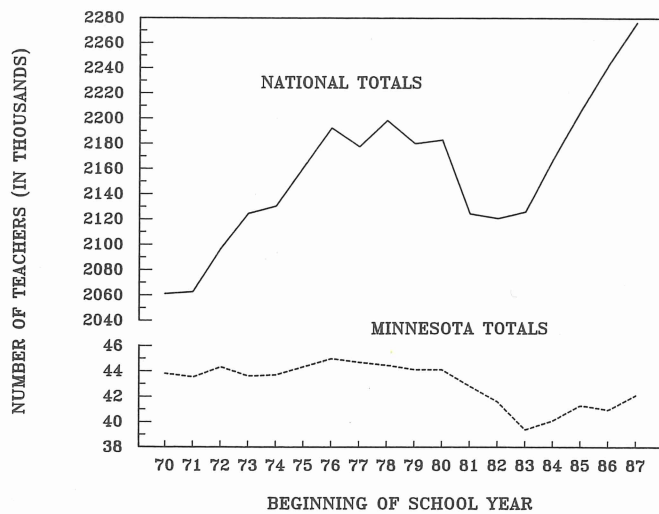
SCHOOL YEAR	PRE-KINDERGARTEN				
	HANDICAPPED	KINDERGARTEN	ELMENTARY	SECONDARY	TOTAL
1987-88	3,199	61,137	326,197	322,652	713,185
1988-89	3,250	59,252	338,617	315,050	716,169
1989-90*	3,250	58,981	346,552	312,001	720,784
1990-91*	3,250	59,741	352,052	315,907	730,950
1991-92*	3,250	58,960	355,645	325,627	743,482

*NOTE: The Department of Education has prepared revised projections of total state enrollment. However, these projections have not yet been disaggregated by district and so are not yet reflected in this report.



7-COUNTY METRO AREA





NATIONAL AND STATE PUBLIC ELEMENTARY AND SECONDARY TEACHERS, 1970-1987

Change in the number of public school teachers at the state and national level shows a very similar pattern over the last 15 years. The number of teachers peaked in the mid-1970s, dropped with enrollment declines in the late 1970s and early 1980s, and had increased since then.

Total teacher numbers in Minnesota decreased sharply in the early 1980s as a result of lower enrollments and the state budget crisis. The number of teachers has increased since 1984, reflecting increased enrollments and funding levels. Change in the number of teachers for any individual district is closely related to enrollment changes.

School enrollment projections, based on the impact of the baby boom "echo", should dictate higher numbers of elementary teachers in growing districts for the next few years. Demand for secondary teachers should rise in growing districts during the early 1990s.

Source: Digest of Education Statistics and "K-12 Education Trends", Trend Report, Minnesota State Planning Agency, 1987.

PUPIL PER TEACHER RATIO BY STATE, FALL 1986

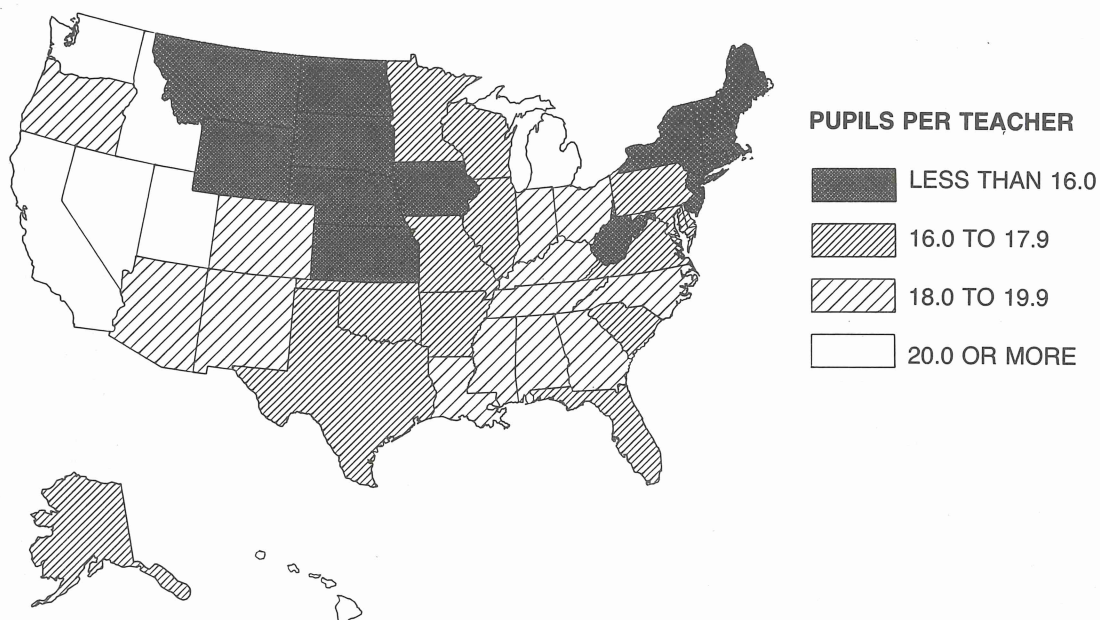
For the fall of 1986, Minnesota had 17.4 pupils per classroom teacher compared to a national average of 17.8. The highest pupil/teacher ratio was in Utah (23.4) and the lowest was in Connecticut (13.7).

Regionally, the highest pupil/teacher ratios were in the west and south. The lowest ratios were in the northern Great Plains and the northeast.

Between 1972 and 1987, Minnesota's pupil per teacher ratio dropped from 20.5 to 17.4 (15 percent). During the same 15 years, the national average has dropped even faster from 22.3 to 17.8 (20 percent). As a result of these changes over the 15-year period, Minnesota's national rank has dropped from 11th to 28th lowest.

Nationally, the number of classroom teachers, as a percent of all school district employees, has dropped from 65 percent in 1959-60 to 53 percent in 1985-86.

Source: Digest of Education Statistics and St. Paul Pioneer Press Dispatch, February 26, 1988.



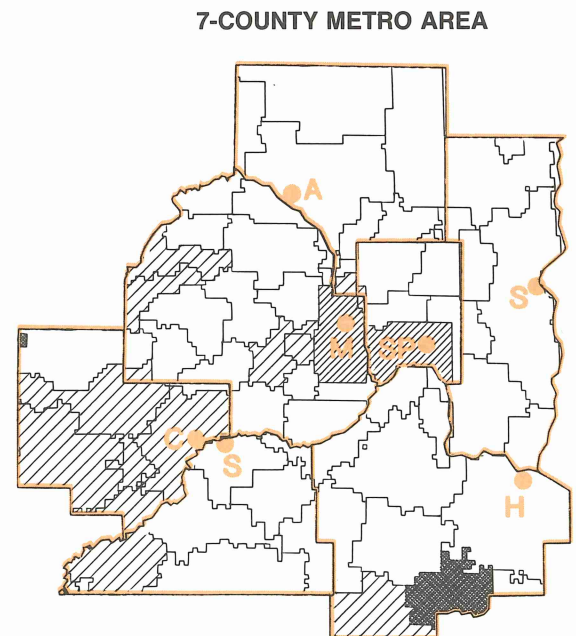
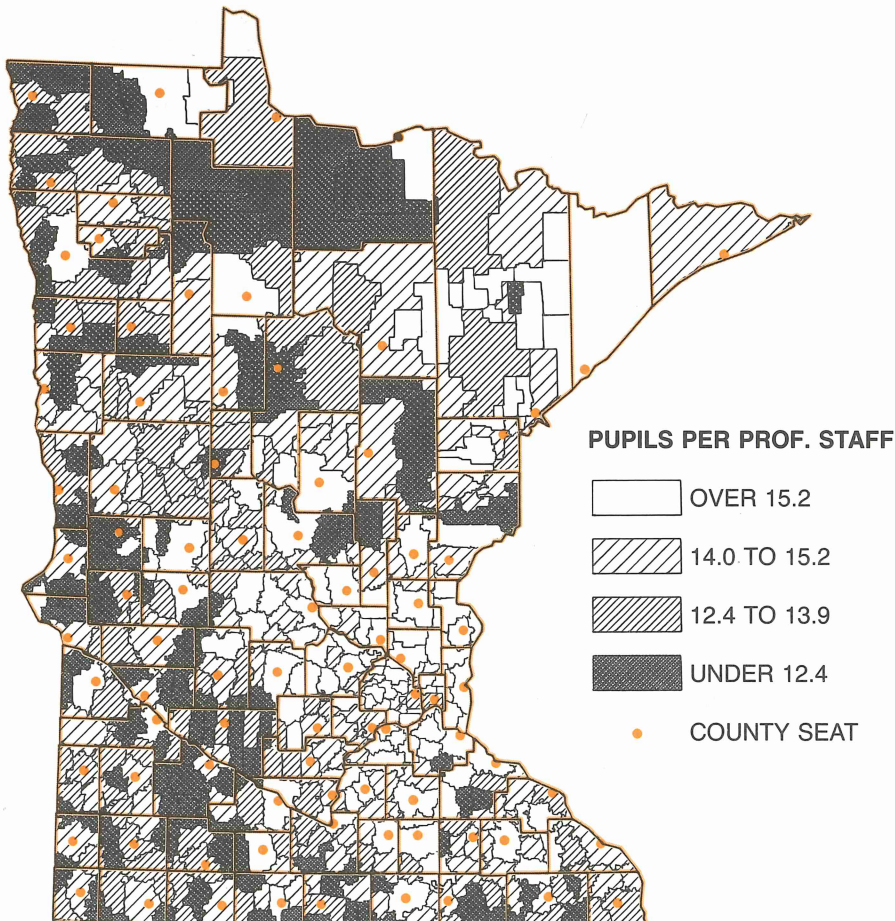
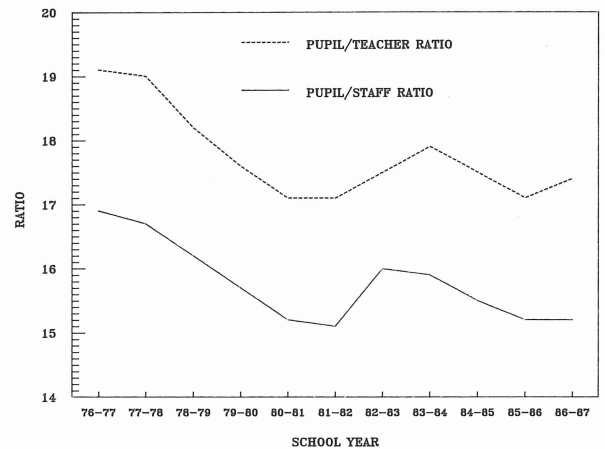
PUPILS PER PROFESSIONAL STAFF MEMBER BY DISTRICT, 1986-7

For the 1986-7 school year, Minnesota's school districts employed a total professional staff of 46,425. This number includes administrators, classroom teachers, and all other licensed professional personnel measured in full-time equivalents (FTE). If this staff was distributed evenly across all school districts, each would have about 106. However, the median for professional staff per district in Minnesota is 46, indicating a large number of school districts with fewer employees than the state average. The range is from 12 in the Verdi District to 2,802 in Minneapolis.

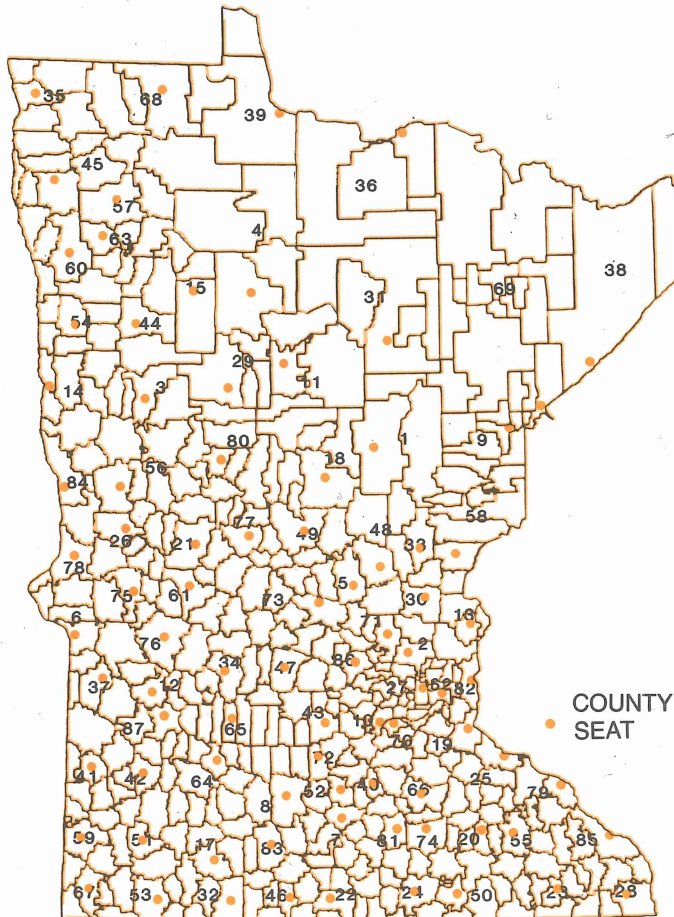
The state average number of pupils per professional staff member (state ADM divided by total state professional staff in FTE) was 15.2 for the 1986-7 school year. However, the state median district had a ratio of 14.0, indicating that more districts were below the state average ratio than above.

Districts with the fewest pupils per professional staff member were generally in Greater Minnesota. For the 1986-7 school year the ratio ranged from a low of 5.7 in the Verdi district to a high in Stillwater with 19.0.

Source: School District Profiles, 1986-7.



MINNESOTA SCHOOL DISTRICTS AND COUNTY BORDERS



1 AITKIN	23 FILLMORE	45 MARSHALL	67 ROCK
2 ANOKA	24 FREEBORN	46 MARTIN	68 ROSEAU
3 BECKER	25 GOODHUE	47 MEEKER	69 ST. LOUIS
4 BELTRAMI	26 GRANT	48 MILE LACS	70 SCOTT
5 BENTON	27 HENNEPIN	49 MORRISON	71 SHERBURNE
6 BIG STONE	28 HOUSTON	50 MOWER	72 SIBLEY
7 BLUE EARTH	29 HUBBARD	51 MURRAY	73 STEARNS
8 BROWN	30 ISANTI	52 NICOLLET	74 STEELE
9 CARLTON	31 ITASCA	53 NOBLES	75 STEVENS
10 CARVER	32 JACKSON	54 NORMAN	76 SWIFT
11 CASS	33 KANABEC	55 OLMSTED	77 TODD
12 CHIPPEWA	34 KANDIYOHI	56 OTTERTAIL	78 TRAVERSE
13 CHISAGO	35 KITTSO	57 PENNINGTON	79 WABASHA
14 CLAY	36 KOCHICHING	58 PINE	80 WADENA
15 CLEARWATER	37 LAC QUI PARLE	59 PIPESTONE	81 WASECA
16 COOK	38 LAKE	60 POLK	82 WASHINGTON
17 COTTONWOOD	39 LAKE OF THE WOODS	61 POPE	83 WATONWAN
18 CROW WING	40 LE SUEUR	62 RAMSEY	84 WILKIN
19 DAKOTA	41 LINCOLN	63 RED LAKE	85 WINONA
20 DODGE	42 LYON	64 REDWOOD	86 WRIGHT
21 DOUGLAS	43 MCLEOD	65 RENVILLE	87 YELLOW MEDICINE
22 FARIBAULT	44 MAHOMEN	66 RICE	

DATA SOURCES

Annual School Census, Minnesota Department of Education, October 1, 1987

Digest of Educational Statistics, U.S. Department of Education, issued annually, various issues used.

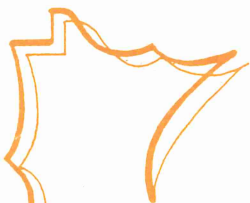
"K-12 Education Trends", Trend Report series, Minnesota State Planning Agency, January, 1987.

Minnesota Public School Enrollment, Minnesota Department of Education, various issues used.

Minnesota School Enrollment Projections, 1988 edition, Minnesota Department of Education, March, 1988.

St. Paul Pioneer Press Dispatch, "Minnesota Graduation Rate is Tops" by Steven Thomma, February 26, 1988.

School District Profiles, Minnesota Department of Education, issued annually, various issues used.



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